The planning, scoping, design, implementation, operation, and maintenance of roads should reasonably address the safety and accessibility needs of users of all ages and abilities. The needs of motorists, pedestrians, transit users, and vehicles, bicyclists, and commercial and emergency vehicles moving along and across roads, intersections, and crossings should be consideration in a manner that is sensitive to the local context and recognizes the varying needs in urban, suburban, and rural settings.

A request for a variance to the design elements required by State Aid Operations Rules Chapter 8820 should contain the following as applicable:

1. As required by the Rules: a certified resolution from the responsible city council or county board which identifies the project by location and termini, cites the applicable Rule and chapter, cites the standard for which the variance is requested, and describes what is proposed in lieu of the standard.

   If applicable, cite the relevant guidance provided in the latest edition of “A Policy on Geometric Design of Highways and Streets”, from AASHTO. For projects in urban areas, if applicable, cite the relevant guidance provided in the latest edition of the “Context Sensitive Solutions in Designing Major Urban Thoroughfares for Walkable Communities” from the Institute of Transportation Engineers.

2. Location map and typical section (in-place and proposed).

3. Describe adjacent land uses (agricultural, residential, commercial, etc).

4. Describe the needs of motorists, pedestrians, transit users, and vehicles, bicyclists, and commercial and emergency vehicles moving along and across roads, intersections, and crossings should be consideration in a manner that is sensitive to the local context. If applicable, cite the relevant guidance provided in the Institute of Transportation Engineers’ “Context Sensitive Solutions in Designing Major Urban Thoroughfares for Walkable Communities“.

5. Describe effects of designing in accordance to Rule versus proposed non-standard element on adjacent properties, pedestrians, bicycles, motoring public, and emergency vehicles.

6. Define the critical design element involved (i.e. not "Design Speed"): horizontal alignment (radius or degree of curvature), vertical alignment, grades, lane width, shoulder width, bridge width, structural capacity, stopping sight distance (horizontal and vertical), cross slope, super-elevation, clearance (horizontal and vertical).

7. Estimate the cost/impacts to construct to the standard, the cost to build to the proposed element, and information that logically explains why the particular proposed design was chosen. For instance, if the radius and sight distance for a horizontal curvature is proposed at 35 mph instead of 55 mph, include cost/impacts for 50 mph and 40 mph radii and sight distance.

8. Include available accident data in detail that indicates the resulting damage (property damage/injury/death), contributing causes, and location.

   The Minnesota Crash Mapping Analysis Tool (MnCMAT) is available thru the SALT Traffic Safety website at http://www.dot.state.mn.us/stateaid/trafficsafety.html. Note that access to the MnCMAT application requires approval of the city or county engineer. Questions on gaining access or use of the application can be directed to mcmat.dot@state.mn.us.

9. Include existing and projected traffic counts.

10. Include legal, posted, and/or safe speed of abutting roadway sections.

11. Indicate if future improvements are planned on the roadway or on adjacent property.

12. Describe safety mitigation considered, such as signing in accordance with MMUTCD, side-slope flattening, etc.

13. Any other pertinent factors.